

Claims

1. Tube handling device for inserting tubes into a tube filling machine, for relocating tubes within the tube filling machine and/or for removing tubes from the tube filling machine, with at least one movable carrier (13) having a plurality of tube grippers (14) disposed thereon in at least one gripper row, wherein an adjusting device (15) is disposed on the carrier (13), which comprises at least one drive device (16, 17) whose drive motion can be translated by a transfer device (18) into a relative motion of the tube grippers (14) along the gripper row, wherein the tube grippers (14) can be adjusted by the adjusting device (15) between a first relative position in which they have a first predetermined mutual distance, and at least one second relative position in which they have a second predetermined mutual distance, characterized in that the transfer device (18) is formed by scissor action arms (11) which can be pulled apart and pushed together using the drive device (16, 17), the drive device being formed by two pneumatic cylinders (16, 17) which are oriented parallel to each other in the longitudinal direction of the gripper row and which act in opposite directions.
2. Tube handling device according to claim 1, characterized in that the scissor action arms (11) substantially extend in the longitudinal direction of the carrier (13) and the tube grippers (14) are each disposed in a lower hinge point (25) of the scissor action arms (11).
3. Tube handling device according to claim 1 or 2, characterized in that the pneumatic cylinders (16, 17) engage the scissor action arms (11) at approximately 1/4 of their length.

4. Tube handling device according to any one of the claims 1 through 3, characterized in that the motion of the pneumatic cylinders (16, 17) is synchronized.